



LEAVES, A Newsletter of the INTERNATIONAL ENVIRONMENT FORUM  
Volume 21, Number 10 --- 15 October 2019

Website [www.iefworld.org](http://www.iefworld.org) Article Deadline next issue 10 November 2019  
Article submission [newsletter@iefworld.org](mailto:newsletter@iefworld.org)  
Secretariat Email [ief@iefworld.org](mailto:ief@iefworld.org) Christine Muller, General Secretary  
President Email [ief@iefworld.org](mailto:ief@iefworld.org) Arthur Lyon Dahl Ph.D.  
Postal address 12B Chemin de Maisonneuve, CH-1219 Chatelaine, Geneva, Switzerland

**From the Editor, Request for information for upcoming newsletters**

This newsletter is an opportunity for IEF members to share their experiences, activities, and initiatives that are taking place at the community level on environment, climate change, and sustainability. All members are welcome to contribute information about related activities, upcoming conferences, news from like-minded organizations, recommended websites, book reviews, etc. Please send information to [newsletter@ief.org](mailto:newsletter@ief.org)

Please share the Leaves newsletter and IEF membership information with family, friends, and associates and encourage interested persons to consider becoming a member of the IEF.

**SPECIAL ISSUE ON CLIMATE CHANGE**

**To Address Climate Change, Ensure Coherence  
Between Principle and Action**

Daniel Perell

Representative of the Baha'i International Community to the United Nations  
and a member of the International Environment Forum  
New York, 20 September 2019

---

NEW YORK—20 Sep 2019 As thousands gather for the Climate Summit at the United Nations, we are confronted with the basic question of what is needed to make lasting progress on climate change. Views on this may vary, but one thing seems clear: coherence between principles and action is necessary to advance climate justice and environmental protection. Rhetoric articulating appreciation for the environment, concern for future generations, and well-being for all, rings hollow when unmatched by ethical behavior and policy. Achieving such coherence requires more than science and logic—it requires courage and sacrifice.

If steps in this directions are not taken, it is too easy to fall back into the well trodden paths that have brought us to this point. Compromises allow an unjust and unsustainable system to endure, expediency becomes valued over the needs of the most vulnerable, and the inertia of the status quo drives humanity to the limits of the earth's resources. Given the degree of transformation required, we must not wait for more tragedy before taking the courageous steps necessary.

The Intergovernmental Panel on Climate Change noted that setting humanity on a sustainable path would require “rapid, far-reaching, and unprecedented changes in all aspects of society.” This includes transformations to technological, industrial, agricultural, and scientific systems, which in turn require unprecedented change in values, assumptions, standards, and patterns of thought and behavior.

The current economic order has promoted unsustainable patterns of consumption in pursuit of financial return. Its messaging has equated the status and value of the human being with the accumulation of wealth and luxury. And its logic of unlimited individual gain has enriched a privileged few while degrading the natural world and impoverishing masses of humanity. To varying degrees, far from advancing our highest values, the system before us rewards dishonesty, encourages corruption, and treats truth as a negotiable commodity.

A global order based on different understandings of human nature can be created. The proposition that human beings thrive when we cooperate, find fulfillment through harmonious and friendly relationships, and have transcendental longings that no stockpile of possessions can satisfy—these can be the foundations for serious and effective social systems. But efforts toward that end must draw on the very qualities they seek to promote. Noble aims must be sought through noble means.

(Read [New Narratives in the Quest of Equality: Elites and Everyone Else](#))

Changing entrenched habits requires a host of qualities pertaining to character, especially from those who are benefiting most from the current system. Among them are the capacity to sacrifice one’s own privilege and comfort for the wellbeing of others, the humility to admit errors, the courage to make difficult yet important decisions, the discipline to overcome familiar yet destructive patterns of behavior, and the daily commitment to value every human life as sacred.

The climate crisis—one of the most pronounced symptoms of our ailing global order—requires genuine transformative change. Its various physical manifestations are an expression of the inaccuracy and insufficiency of our views of ourselves and the world.

We must find unity, solidarity, and even opportunity in the common struggle increasingly faced in every corner of the world. We must draw on the insights of science and the universal values of the world’s great religions to inform our next steps, and to guide our current trajectory. For religion without science becomes pure superstition, and science without religion becomes the instrument of materialism. Transformation will result from the insights gleaned when both systems of knowledge are judiciously applied to the crises humanity faces—climate foremost among them.

Daniel Perell is a Representative of the Baha’i International Community to the United Nations. He is also a member of the International Environment Forum.

Source: <https://www.bic.org/perspectives/perspective-address-climate-change-ensure-coherence-between-principle-and-action> Also here: [https://www.iefworld.org/index.php/2019bic\\_climate\\_coherence](https://www.iefworld.org/index.php/2019bic_climate_coherence)

---

## Climate change: Impacts 'accelerating' as leaders gather for UN talks

By Matt McGrath, Environment correspondent - BBC

---

The signs and impacts of global warming are speeding up, the latest science on climate change, published ahead of key UN talks in New York, says. The data, compiled by the World Meteorological Organization (WMO), says the five-year period from 2014 to 2019 is the warmest on record. Sea-level rise has accelerated significantly over the same period, as CO2 emissions have hit new highs. The WMO says carbon-cutting efforts have to be intensified immediately.

The climate statement is a pull-together of the latest science on the causes and growing impacts of unprecedented levels of warming seen in recent years. Recognising that global temperatures have risen by 1.1 degrees C since 1850, the paper notes they have gone up by 0.2C between 2011 and 2015. This is as a result of burgeoning emissions of carbon, with the amount of the gas going into the

atmosphere between 2015 and 2019 growing by 20% compared with the previous five years.

Perhaps most worrying of all is the data on sea-level rise. The average rate of rise since 1993 until now is 3.2mm per year. However, from May 2014 to 2019 the rise has increased to 5mm per year. The 10-year period from 2007-2016 saw an average of about 4mm per year.

"Sea-level rise has accelerated and we are concerned that an abrupt decline in the Antarctic and Greenland ice sheets, which will exacerbate future rise," said WMO secretary general Petteri Taalas.

"As we have seen this year with tragic effect in the Bahamas and Mozambique, sea-level rise and intense tropical storms led to humanitarian and economic catastrophes."

The report also highlights the threats to the oceans, with more than 90% of the excess heat caused by climate change ending up in the waters. The WMO analysis says 2018 had the highest ocean heat content values on record.

The study underlines the fact that wherever you look on the planet right now, the story is the same: human-induced warming is impacting the scale and intensity of extreme weather events such as heatwaves and wildfires.

"Climate change due to us is accelerating and on a very dangerous course," said Prof Brian Hoskins, chair of the Grantham Institute, Imperial College London, and professor of meteorology, University of Reading. "We should listen to the loud cry coming from the schoolchildren. There is an emergency - one for action in both rapidly reducing our greenhouse gas emissions towards zero and adapting to the inevitable changes in climate."

### 'No fancy speeches'

The WMO report is meant to inform the special UN summit on climate change taking place in New York on Monday.

A range of political leaders will attend the one-day event, which is designed to be about action and not words, according to UN secretary general António Guterres. "I told leaders not to come with fancy speeches, but with concrete commitments," he said ahead of the meeting. "People want solutions, commitments and action. I expect there will be an announcement and unveiling of a number of meaningful plans on dramatically reducing emissions during the next decade, and on reaching carbon neutrality by 2050."

[Greta Thunberg](#) and other youth activists, fresh from marching on the streets of New York on Friday, will speak at the opening of the meeting. About 60 heads of state are expected to follow, with countries expected to announce new actions to limit the causes of warming or to speak on initiatives developed by a coalition of nations. While China, India, France, Germany and the UK will speak at the meeting, there is no place on the podium for Japan or Australia.

Mr Guterres has asked that as well as committing to net-zero emissions by 2050, countries should reduce subsidies for fossil fuels and stop building new coal-fired power stations. The question of coal has led to the barring of Japanese Prime Minister Shinzo Abe and Australia's Scott Morrison. The US, Brazil and Saudi Arabia will also not be taking part.

The success of the special summit remains in the balance - what isn't in question is the urgency of action and the fact that delay means more difficult decisions down the line. "It is highly important that we reduce greenhouse gas emissions, notably from energy production, industry and transport. This is critical if we are to mitigate climate change and meet the targets set out in the Paris Agreement," said Petteri Taalas from the WMO. "To stop a global temperature increase of more than 2 degrees C above pre-industrial levels, the level of ambition needs to be tripled. And to limit the increase to 1.5 degrees, it needs to be multiplied by five," he said.

Source: <https://www.bbc.com/news/science-environment-49773869>

---

## A Climate Week of Strikes and Marches

By Arthur Dahl

---

Inspired by Greta Thunberg, the Swedish 16-year-old who launched the Fridays for Future student climate strike movement a year ago, and who has now addressed the US Congress and the United Nations General Assembly, the week of 20-27 September became a week of mass demonstrations for climate action around the world. During the week, 7.6 million people participated in over 6,000 events in 185 countries. It coincided with the UN Climate Action Summit in New York on 23 September.

About 4 million people took part in climate demonstrations on the first Friday alone. There were 330,000 in Australia, 100,000 in Berlin and Melbourne, about 250,000 in New York, 35,000 in Paris. In the Solomon Islands, children marched into the sea to protest against rising sea levels threatening their communities. Photos from the march in Vanuatu made the international news.

### Climate Action Summit in New York

While students were striking and marching, the UN General Assembly in New York started with a special Climate Change Action Summit on 23 September. UN Secretary-General António Guterres called on all leaders to come to New York with concrete, realistic plans to enhance their nationally determined contributions by 2020, in line with reducing greenhouse gas emissions by 45 per cent over the next decade, and to net zero emissions by 2050. The summit was opened by youth including Greta Thunberg, who gave an [impassioned speech](#) that electrified much of the audience of heads of state, with a few obvious exceptions. The summit produced mixed results. Some heads of government announced higher targets for action to reduce greenhouse gas emissions. But despite strident warnings from the scientific community including [data from WMO](#) and a new [IPCC report on oceans and ice](#) reported on in this newsletter, and climate-related catastrophes from wildfires and heat waves to record-breaking temperatures and storms, some of the biggest emitting countries remain far behind or are even making things worse. UNDP said that 14 nations representing a quarter of global emissions have indicated that they do not intend to revise their present climate commitments by 2020.

IEF member Dan Perell of the Bahá'í International Community posted a thoughtful perspective "To Address Climate Change, Ensure Coherence Between Principle and Action" (See first article above or at: [https://iefworld.org/2019bic\\_climate\\_coherence](https://iefworld.org/2019bic_climate_coherence)).

### Strikes and Marches in Switzerland

The following weekend the strikes and marches continued. In tiny Switzerland (population 8.5 million) where I live, there were student climate strikes and marches in cities all over the country on Friday 27 September. I joined several thousand students and some older people for the march through the city centre of Geneva. My placard read "Values change, not climate change" with a link to the International Environment Forum page on climate change.

These local Swiss demonstrations of climate concern were followed on Saturday 28 September by a national climate march in the capital, Bern. I went by train, and even with 14 extra trains put on

from all over Switzerland, there were still people standing in the aisles and sitting on the stairs going and returning. 1,000 came by bicycle along 30 predefined routes from different parts of the country. Once we arrived in the capital, it took us two hours just to inch our way the short distance from the train station to the Federal Parliament. Many were stuck in side streets and were never able to get to



the Bundesplatz/Place Federal before the Federal Parliament building, where it was almost impossible to move. An estimated 100,000 people crowded into the narrow streets of Bern, more than 1% of the Swiss population and the same number as Berlin with a national population ten times as large.



Photo Credit: swissinfo.ch

There were speeches, including by a Nobel Prize winning scientist criticizing the consumer society, and an indigenous militant from Borneo calling for a boycott of products linked to rain forest destruction. Church bells rang all over the city including the cathedral, supporting participation from 150 parishes. All generations were represented, including many older people and families with small children. A lot of effort and imagination went into the placards and other objects that people carried, including many made by children. There were chants for climate justice now, and for an economic revolution.

(See news report and video in German at <https://www.bazonline.ch/news/standard/klimademo/story/19220274>), and my photo album at [http://yabaha.net/dahl/travel/tswiss/2019climate\\_march2/Swiss\\_climate\\_march.html](http://yabaha.net/dahl/travel/tswiss/2019climate_march2/Swiss_climate_march.html).)

---

## Greta Thunberg at the UN Climate Action Summit

New York, 23 September 2019

---

This is all wrong. I shouldn't be standing here. I should be back in school on the other side of the ocean. Yet you all come to me for hope? How dare you! You have stolen my dreams and my childhood with your empty words. And yet I'm one of the lucky ones. People are suffering. People are dying. Entire ecosystems are collapsing. We are in the beginning of a mass extinction. And all you can talk about is money and fairytales of eternal economic growth. How dare you!

For more than 30 years the science has been crystal clear. How dare you continue to look away, and come here saying that you are doing enough, when the politics and solutions needed are still nowhere in sight.

You say you "hear" us and that you understand the urgency. But no matter how sad and angry I am, I don't want to believe that. Because if you fully understood the situation and still kept on failing to act, then you would be evil. And I refuse to believe that.

The popular idea of cutting our emissions in half in 10 years only gives us a 50% chance of staying below 1.5C degrees, and the risk of setting off irreversible chain reactions beyond human control.

Maybe 50% is acceptable to you. But those numbers don't include tipping points, most feedback loops, additional warming hidden by toxic air pollution or the aspects of justice and equity. They also rely on my and my children's generation sucking hundreds of billions of tonnes of your CO2 out of the air with technologies that barely exist. So a 50% risk is simply not acceptable to us – we who have to live with the consequences.

To have a 67% chance of staying below a 1.5C global temperature rise – the best odds given by the Intergovernmental Panel on Climate Change – the world had 420 gigatonnes of carbon dioxide left to

emit back on 1 January 2018. Today that figure is already down to less than 350 gigatonnes. How dare you pretend that this can be solved with business-as-usual and some technical solutions. With today's emissions levels, that remaining CO2 budget will be entirely gone in less than eight and a half years.

There will not be any solutions or plans presented in line with these figures today. Because these numbers are too uncomfortable. And you are still not mature enough to tell it like it is.

You are failing us. But the young people are starting to understand your betrayal. The eyes of all future generations are upon you. And if you choose to fail us I say we will never forgive you. We will not let you get away with this. Right here, right now is where we draw the line. The world is waking up. And change is coming, whether you like it or not.

Source: <https://www.theguardian.com/commentisfree/2019/sep/23/world-leaders-generation-climate-breakdown-greta-thunberg>

VIDEO: <http://webtv.un.org/meetings-events/security-council/americas/watch/greta-thunberg-young-climate-activist-at-the-opening-of-the-climate-action-summit-2019/6088742229001/> or <https://www.youtube.com/watch?v=v33ro5IGHQg>

---

## Look to the ocean for climate change solutions

Opinion by Erna Solberg and Tommy Remengesau Jr.

---

CNN, 23 September 2019

Humanity is exacting a terrible toll on the ocean. The Intergovernmental Panel on Climate Change (IPCC) will publish its Special Report on the Ocean and Cryosphere in a Changing Climate later this week. Its overarching message will be that global warming, combined with the negative impacts of numerous other human activities, is devastating our ocean, with alarming declines in fish stocks, the death of our reefs, and sea level rise that could displace hundreds of millions of people. But there is a glimmer of hope -- there is now overwhelming scientific evidence that the ocean can be a potent force in stabilizing the climate and building a secure future for everyone.

Ocean-based climate solutions could deliver as much as 21% of the emissions reductions needed to limit global warming to no more than 1.5 degrees Celsius by 2050. These reductions could amount to 11.8 gigatons of carbon dioxide equivalent, or CO<sub>2</sub>e -- a standard unit that measures the impact of greenhouse gases in relation to the effects of CO<sub>2</sub>. This figure is greater than the current emissions from all coal-fired power plants worldwide.

These are the key figures from a new report released today, commissioned by the [High Level Panel for a Sustainable Ocean Economy](#) composed of 14 prime ministers and presidents, which we are proud to chair. It demonstrates in detail, for the first time, how a sustainable ocean economy could play a much bigger role than we previously thought in shrinking our carbon footprint, achieving the goals of the Paris Agreement, and delivering on the Sustainable Development Goals set forth by the UN in 2015.

Given the report's findings, the High Level Panel is launching a Call to Ocean-Climate Action at the U.N. Climate Action Summit in New York today. The call presents a list of five actions we can take to boost ocean health and mitigate the climate crisis.

The first thing we should do is scale up ocean-based renewable energy (such as offshore wind turbines and new technologies to harness the energy of waves and tides). As an alternative to fossil fuels, this has the potential to cut the most emissions -- as much as 5.4 gigatons of CO<sub>2</sub>e annually by 2050. That's the equivalent of taking over a billion cars off the road for a year.

We also need to ramp up our ambitions to decarbonize shipping and marine transport; fortunately, many of the solutions to do this already exist. It is also crucial to protect and restore mangroves,

seagrasses, salt marshes, and other coastal and marine ecosystems that face a huge threat from over-development. Doing so would prevent significant quantities of greenhouse gases from entering the atmosphere by increasing nature's capacity to sequester carbon. Additionally, developing low-carbon sources of protein from the ocean -- like seafood, seaweeds and kelp -- can provide a healthy and sustainable diet for future populations while easing emissions from land-based food production.

We have the available tools to start implementing these ocean-based climate actions now.

To win the fight against climate change, we need all hands on deck -- on land and sea. We are strongly urging other leaders around the world to swiftly implement these actions to secure a healthy, low-carbon and climate-resilient future for our ocean.

Until now, our ocean has played a relatively minor role in national climate plans and strategies. The actions outlined in our new report offer exciting new opportunities to fight the climate crisis. All governments should incorporate ocean-based solutions in their national climate commitments in 2020, and in their actions to meet the Sustainable Development Goals. Let's pull together and seize this opportunity to save our climate by transforming the way we interact with our ocean.

As the leaders of Norway and Palau -- two countries where the vitality of the ocean is critical -- we understand how the climate crisis affects our citizens, along with the rest of the world. There is nowhere to hide; the impacts of the climate emergency will be felt from the deepest ocean ravines to the highest mountaintops; from the small islands in the middle of the Pacific, to the largest nations on every continent.

The ocean is becoming increasingly hotter and more acidic, which threatens all life on our planet. But this story need not end in tragedy. The ocean can be a vibrant source of inspiration and hope, as well as a powerful partner in the fight to turn the tide against the climate crisis. It is well within our capacity to build a sustainable ocean economy that benefits both nature and humanity -- but we must act now before it is too late.

(\*) Erna Solberg is the prime minister of Norway. Tommy Remengesau Jr. is the president of Palau. The views expressed in this commentary belong to the authors.

Source: <https://edition.cnn.com/2019/09/23/opinions/un-ocean-climate-change-solutions-solberg-remengesau/index.html>

Also here: <https://www.iefworld.org/index.php/node/100>

---

## **The IPCC Special Report on Oceans and Cryosphere**

Intergovernmental Panel on Climate Change  
Special Report on the Ocean and Cryosphere in a Changing Climate (SROCC)  
IPCC Press Release 2019/31/PR 25 September 2019

---

MONACO, 25 September 2019

The latest Intergovernmental Panel on Climate Change (IPCC) Special Report highlights the urgency of prioritizing timely, ambitious and coordinated action to address unprecedented and enduring changes in the ocean and cryosphere. The report reveals the benefits of ambitious and effective adaptation for sustainable development and, conversely, the escalating costs and risks of delayed action.

The ocean and the cryosphere – the frozen parts of the planet – play a critical role for life on Earth. A total of 670 million people in high mountain regions and 680 million people in low-lying coastal zones depend directly on these systems. Four million people live permanently in the Arctic region, and small island developing states are home to 65 million people.

Global warming has already reached 1°C above the pre-industrial level, due to past and current greenhouse gas emissions. There is overwhelming evidence that this is resulting in profound

consequences for ecosystems and people. The ocean is warmer, more acidic and less productive. Melting glaciers and ice sheets are causing sea level rise, and coastal extreme events are becoming more severe.

The IPCC Special Report on the Ocean and Cryosphere in a Changing Climate, approved on 24 September 2019 by the 195 IPCC member governments, provides new evidence for the benefits of limiting global warming to the lowest possible level – in line with the goal that governments set themselves in the 2015 Paris Agreement. Urgently reducing greenhouse gas emissions limits the scale of ocean and cryosphere changes. Ecosystems and the livelihoods that depend on them can be preserved.

“The open sea, the Arctic, the Antarctic and the high mountains may seem far away to many people,” said Hoesung Lee, Chair of the IPCC. “But we depend on them and are influenced by them directly and indirectly in many ways – for weather and climate, for food and water, for energy, trade, transport, recreation and tourism, for health and wellbeing, for culture and identity.” “If we reduce emissions sharply, consequences for people and their livelihoods will still be challenging, but potentially more manageable for those who are most vulnerable,” Lee said. “We increase our ability to build resilience and there will be more benefits for sustainable development.”

Knowledge assessed in the report outlines climate-related risks and challenges that people around the world are exposed to today and that future generations will face. It presents options to adapt to changes that can no longer be avoided, manage related risks and build resilience for a sustainable future. The assessment shows that adaptation depends on the capacity of individuals and communities and the resources available to them.

More than 100 authors from 36 countries assessed the latest scientific literature related to the ocean and cryosphere in a changing climate for the report, referencing about 7,000 scientific publications. The IPCC Special Report is a key scientific input for world leaders gathering in forthcoming climate and environment negotiations, such as the UN Framework Convention on Climate Change Conference (COP25) in Chile in December.



Second Lead Author Meeting for Special Report on the Ocean and Cryosphere in a Changing Climate (organized by WGII) (Quito, Ecuador), Photo Credit: IPCC

“The world’s ocean and cryosphere have been ‘taking the heat’ from climate change for decades, and consequences for nature and humanity are sweeping and severe,” said Ko Barrett, Vice-Chair of the IPCC. “The rapid changes to the ocean and the frozen parts of our planet are forcing people from coastal cities to remote Arctic communities to fundamentally alter their ways of life,” she added. “By understanding the causes of these changes and the resulting impacts, and by evaluating options that are available, we can strengthen our ability to adapt,” she said. “The Special Report on the Ocean and Cryosphere in a Changing Climate provides the knowledge that facilitates these kinds of decisions.”



### **Major changes in high mountains affecting downstream communities**

People in mountain regions are increasingly exposed to hazards and changes in water availability, the report said. Glaciers, snow, ice and permafrost are declining and will continue to do so. This is projected to increase hazards for people, for example through landslides, avalanches, rock falls and floods. Smaller glaciers found for example in Europe, eastern Africa, the tropical Andes and Indonesia are projected to lose more than 80% of their current ice mass by 2100 under high emission scenarios. The retreat of the high mountain cryosphere will continue to adversely affect recreational activities, tourism, and cultural assets. As mountain glaciers retreat, they are also altering water availability and quality downstream, with implications for many sectors such as agriculture and hydropower.

“Changes in water availability will not just affect people in these high mountain regions, but also communities much further downstream,” said Panmao Zhai, Co-Chair of IPCC Working Group I. “Limiting warming would help them adapt to changes in water supplies in mountain regions and beyond, and limit risks related to mountain hazards,” he said. “Integrated water management and transboundary cooperation provides opportunities to address impacts of these changes in water resources.”

### **Melting ice, rising seas**

Glaciers and ice sheets in polar and mountain regions are losing mass, contributing to an increasing rate of sea level rise, together with expansion of the warmer ocean. While sea level has risen globally by around 15 cm during the 20th century, it is currently rising more than twice as fast – 3.6mm per year – and accelerating, the report showed. Sea level will continue to rise for centuries. It could reach around 30-60 cm by 2100 even if greenhouse gas emissions are sharply reduced and global warming is limited to well below 2°C, but around 60-110 cm if greenhouse gas emissions continue to increase strongly.

“In recent decades the rate of sea level rise has accelerated, due to growing water inputs from ice sheets in Greenland and Antarctica, in addition to the contribution of meltwater from glaciers and the expansion of warmer sea waters,” said Valérie Masson-Delmotte, Co-Chair of IPCC Working Group I. “This new assessment has also revised upwards the projected contribution of the Antarctic ice sheet to sea level rise by 2100 in the case of high emissions of greenhouse gases,” she said. “The wide range of sea level projections for 2100 and beyond is related to how ice sheets will react to warming, especially in Antarctica, with major uncertainties still remaining.”

### **More frequent extreme sea level events**

Sea level rise will increase the frequency of extreme sea level events, which occur for example during high tides and intense storms. Indications are that with any degree of additional warming, events that occurred once per century in the past will occur every year by mid-century in many regions, increasing risks for many low-lying coastal cities and small islands. Without major investments in adaptation, they would be exposed to escalating flood risks, the report shows.

Some island nations are likely to become uninhabitable due to climate-related ocean and cryosphere change, the report said, but habitability thresholds remain extremely difficult to assess. Increases in tropical cyclone winds and rainfall are exacerbating extreme sea level events and coastal hazards. Hazards will be further intensified by an increase in the average intensity, magnitude of storm surge and precipitation rates of tropical cyclones, especially if greenhouse gas emissions remain high.

“Various adaptation approaches are already being implemented, often in response to flooding events, and the report highlights the diversity of options available for each context to develop integrated responses anticipating the full scale of future sea level rise,” said Masson-Delmotte.

### **Changing ocean ecosystems**

Warming and changes in ocean chemistry are already disrupting species throughout the ocean food web, with impacts on marine ecosystems and people that depend on them, the report said. To date, the ocean has taken up more than 90% of the excess heat in the climate system. By 2100, the ocean

will take up 2 to 4 times more heat than between 1970 and the present if global warming is limited to 2°C, and up to 5 to 7 times more at higher emissions. Ocean warming reduces mixing between water layers and, as a consequence, the supply of oxygen and nutrients for marine life.

Marine heat waves have doubled in frequency since 1982 and are increasing in intensity. They are projected to further increase in frequency, duration, extent and intensity. Their frequency will be 20 times higher at 2°C warming, compared to pre-industrial levels. They would occur 50 times more often if emissions continue to increase strongly.

The ocean has taken up between 20 to 30% of human-induced carbon dioxide emissions since the 1980s, causing ocean acidification. Continued carbon uptake by the ocean by 2100 will exacerbate ocean acidification. Ocean warming and acidification, loss of oxygen and changes in nutrient supplies, are already affecting the distribution and abundance of marine life in coastal areas, in the open ocean and at the seafloor. Shifts in the distribution of fish populations have reduced the global catch potential. In the future, some regions, notably tropical oceans, will see further decreases, but there will be increases in others, such as the Arctic. Communities that depend highly on seafood may face risks to nutritional health and food security.

“Cutting greenhouse gas emissions will limit impacts on ocean ecosystems that provide us with food, support our health and shape our cultures,” said Hans-Otto Pörtner, Co-Chair of IPCC Working Group II. “Reducing other pressures such as pollution will further help marine life deal with changes in their environment, while enabling a more resilient ocean.” “Policy frameworks, for example for fisheries management and marine-protected areas, offer opportunities for communities to adapt to changes and minimize risks for our livelihoods,” he added.

### **Declining Arctic sea ice, thawing permafrost**

The extent of Arctic sea ice is declining in every month of the year, and it is getting thinner. If global warming is stabilized at 1.5°C above pre-industrial levels, the Arctic ocean would only be ice-free in September – the month with the least ice – once in every hundred years. For global warming of 2°C, this would occur up to one year in three. Some people living in the Arctic, especially indigenous peoples, have already adjusted their traveling and hunting activities to the seasonality and safety of land, ice and snow conditions, and some coastal communities have planned for relocation. Their success in adapting depends on funding, capacities, and institutional support, the report shows.

Permafrost ground that has been frozen for many years is warming and thawing and widespread permafrost thaw is projected to occur in the 21st century. Even if global warming is limited to well below 2°C, around 25% of the near-surface (3-4 meter depth) permafrost will thaw by 2100. If greenhouse gas emissions continue to increase strongly, there is a potential that around 70% near-surface permafrost could be lost. Arctic and boreal permafrost hold large amounts of organic carbon, almost twice the carbon in the atmosphere, and have the potential to significantly increase the concentration of greenhouse gases in the atmosphere if they thaw. It is unclear whether there is already a net release of carbon dioxide or methane due to the ongoing thaw of the Arctic permafrost. In the future, increased plant growth can increase the storage of carbon in soils and offset carbon release from permafrost thaw, but not at the scale of large changes on the long term. Wild fires are disturbing ecosystems in most tundra and boreal as well as mountain regions.

### **Knowledge for urgent action**

The report finds that strongly reducing greenhouse gas emissions, protecting and restoring ecosystems, and carefully managing the use of natural resources would make it possible to preserve the ocean and cryosphere as a source of opportunities that support adaptation to future changes, limit risks to livelihoods and offer multiple additional societal benefits.

“We will only be able to keep global warming to well below 2°C above pre-industrial levels if we effect unprecedented transitions in all aspects of society, including energy, land and ecosystems, urban and infrastructure as well as industry. The ambitious climate policies and emissions reductions required to deliver the Paris Agreement will also protect the ocean and cryosphere – and ultimately sustain all life

on Earth,” said Debra Roberts, Co-Chair of IPCC Working Group II.

SROCC provides the best available scientific knowledge to empower governments and communities to take action, embedding that scientific knowledge on unavoidable change and plausible futures into their own context, to limit the scale of risks and climate impacts. The report gives evidence of the benefits of combining scientific with local and indigenous knowledge to develop suitable options to manage climate change risks and enhance resilience. This is the first IPCC report that highlights the importance of education to enhance climate change, ocean and cryosphere literacy.

“The more decisively and the earlier we act, the more able we will be to address unavoidable changes, manage risks, improve our lives and achieve sustainability for ecosystems and people around the world – today and in the future,” Roberts said.

For the **Headline Statement** from the SROCC Summary for Policy Makers, click [here](#)

Source: [https://report.ipcc.ch/srocc/pdf/SROCC\\_SPM\\_HeadlineStatements.pdf](https://report.ipcc.ch/srocc/pdf/SROCC_SPM_HeadlineStatements.pdf) September 2019  
also here: <https://www.iefworld.org/index.php/node/1008>

---

## What Role for Agricultural Policies? Working towards the Global Compact on Migration

Baha'i International Community, BRUSSELS—17 September 2019

---

As humanity moves towards more complex levels of interdependence, the need to explore the intricate connections between policies in different parts of the world becomes clearer. To this end, the Baha'i International Community and the EU Policy Lab of the Joint Research Center hosted a discussion with experts from the European Commission and civil society to consider the linkages between European agricultural policies and the drivers of migration and displacement in Africa.



It followed a similar discussion that took place last year which explored how the European Commission can mobilize non-migration policies to support the implementation of the objectives outlined in the Global Compact for Safe, Orderly and Regular Migration—an inter-governmentally negotiated agreement that describes itself as covering all dimensions of international migration in a holistic and comprehensive manner.

Objective 2 of the Global Compact seeks to minimize the adverse drivers and structural factors that compel people to leave their country of origin. To date, policy responses have largely taken the form of humanitarian or

development aid and migration management. However, the drivers of migration and displacement extend far beyond the purview of migration or development policy per se.

“The fact that policies have implications beyond their intended thematic and geographical scope is particularly notable in the agricultural sector,” said Rachel Bayani, Representative of the Baha'i International Community's Brussels office in her opening remarks.

“There is no doubt that tracing the consequences, positive or negative, of the EU's agricultural policies on local economies elsewhere—and hence on the drivers of migration—is a complex endeavor. As overwhelming as the task may seem, there is a need to work towards the gradual identification of those questions that allow for increased coherence and for agricultural policies to contribute to

Objective 2 of the Global Compact.”

Given the global interconnectedness of economic systems, new forms of global governance are needed that consider multiple interests and powers and cater to new complexities, said one participant.

“How we designed policies ten to fifteen years ago will not work ten to fifteen years from now. We have to have this conversation at a global level because everyone is involved,” one participant said.

Addressing such complex issues must inevitably lead to closer collaboration between different parts of the world. “What can a European-African partnership look like?” was a question that emerged in this context. So far, significant attention has been given to knowledge-sharing based on Europe’s own experience to help increase agricultural productivity across Africa. How can policy development take into account the knowledge and experience of African partners?

Addressing this question, Ms. Keri Schewel from the Faculty of Social and Behavioral Sciences at the University of Amsterdam commented that one of the essential questions is about “requirements to ensure that migration is a choice for rural populations—that there is a real opportunity to stay and pursue agricultural or other livelihoods for those who wish to do so. To answer this, we have to go beyond the European experience. There is a real need to shift from knowledge-sharing from Europe to Africa to knowledge-generation about new visions of rural development and agricultural transformation”.

Echoing the thoughts, another participant noted the need to focus on strategies that help local communities determine their own trajectories of innovation and development and let “home grown models of development” emerge.

The EU Policy Lab blog post regarding this event can be viewed [here](#).

---

## **New insights in Climate Science: A 2017-2019 Summary**

by Future Earth and the Earth League

---

Human livelihoods, stable economies, good health, and high quality of life all hinge on a stable climate and Earth system, and on a diversity of species and ecosystems. Yet biodiversity is declining faster than at any point in human history and time is running out to limit global temperature rise to well below 2°C and to aim for 1.5°C. To do so, emissions must peak as soon as possible and decline sharply until 2050 but the world is not on that path.

Future Earth and the Earth League have collated the most up-to-date science since 2017, on the drivers and impacts of climate change, to show that achieving the Paris Agreement is not only necessary, but possible. Achieving the goal to limit temperature rise to well below 2°C entails conserving and sustainably using nature, requires fundamental shifts in technological, economic and social paradigms, and compels new governance models and stronger adaptive capacity.

[In their report](#), they lay out the latest facts and plausible pathways towards this transformation.

---

## **The Many Dimensions of Poverty**

UNDP Multidimensional Poverty Index 2019

---

The UN 2030 Agenda aims to leave no one behind, and the Sustainable Development Goals include eliminating poverty (goal 1) and reducing inequalities (goal 10). This requires going behind average statistics and data, especially simple income data, to understand the multiple dimensions of poverty and deprivation, who are the victims, and what is being done or can be done to help them to rise out of poverty. UNDP has taken up the challenge.

The 2019 Global Multidimensional Poverty Index (MPI) data and publication "Illuminating Inequalities" released on 11 July 2019 shed light on the number of people experiencing poverty at regional, national and subnational levels, and reveal inequalities across countries and among the poor themselves.

Jointly developed by the United Nations Development Programme (UNDP) and the Oxford Poverty and Human Development Initiative (OPHI) at the University of Oxford, the 2019 global MPI offers data for 101 countries, covering 76 percent of the global population.

The MPI provides a comprehensive and in-depth picture of global poverty – in all its dimensions – and monitors progress towards Sustainable Development Goal (SDG) 1 – to end poverty in all its forms. It also provides policymakers with the data to respond to the call of Target 1.2, which is to 'reduce at least by half the proportion of men, women, and children of all ages living in poverty in all its dimensions according to national definition'.

The publication "Illuminating Inequalities" previews ongoing research into trends over time for a group of countries including Bangladesh, Democratic Republic of Congo, Ethiopia, Haiti, India, Nigeria, Pakistan, and Peru. SDG target 10.1 calls for tracking the progress of the bottom 40 percent of the population compared with that of the total population – the publication includes case studies and a detailed analysis of the growth of those furthest behind – the 'bottom 40%'.

### Key findings

- Across 101 countries, 1.3 billion people—23.1 percent—are multidimensionally poor.
- Two-thirds of multidimensionally poor people live in middle-income countries.
- There is massive variation in multidimensional poverty within countries. For example, Uganda's national multidimensional poverty rate (55.1 percent) is similar to the Sub-Saharan Africa average (57.5 percent), but the incidence of multidimensional poverty in Uganda's provinces ranges from 6.0 percent to 96.3 percent, a range similar to that of national multidimensional poverty rates in Sub-Saharan Africa (6.3–91.9 percent).
- Half of the 1.3 billion multidimensionally poor people are children under age 18. A third are children under age 10.
- This year's spotlight on child poverty in South Asia reveals considerable diversity. While 10.7 percent of South Asian girls are out of school and live in a multidimensionally poor household, that average hides variation: in Afghanistan 44.0 percent do.
- In South Asia 22.7 percent of children under age 5 experience intrahousehold inequality in deprivation in nutrition (where at least one child in the household is malnourished and at least one child in the household is not). In Pakistan over a third of children under age 5 experience such intrahousehold inequality.
- Of 10 selected countries for which changes over time were analysed, India and Cambodia reduced their MPI values the fastest—and they did not leave the poorest groups behind.
- There is wide variation across countries in inequality among multidimensionally poor people—that is, in the intensity of poverty experienced by each poor person. For example, Egypt and Paraguay have similar MPI values, but inequality among multidimensionally poor people is considerably higher in Paraguay.
- There is little or no association between economic inequality (measured using the Gini coefficient) and the MPI value.
- In the 10 selected countries for which changes over time were analysed, deprivations declined faster among the poorest 40 percent of the population than among the total population.

Video clip on YouTube (1:06 min) [https://www.youtube.com/watch?time\\_continue=66&v=4WRVZ2E8Ayk](https://www.youtube.com/watch?time_continue=66&v=4WRVZ2E8Ayk)

Download: Multidimensional Poverty Index 2019: Illuminating Inequalities  
[http://hdr.undp.org/sites/default/files/mpi\\_2019\\_publication.pdf](http://hdr.undp.org/sites/default/files/mpi_2019_publication.pdf)

Based in part on <http://hdr.undp.org/en/2019-MPI>

On the IEF website: <https://www.iefworld.org/index.php/node/996>

---

## Dutch parliamentary year begins with interfaith gathering, gives voice to youth

Baha'i World News Service, September 27, 2019

---

THE HAGUE, Netherlands — The Prince's Day opening celebrations in the Netherlands, marking the new parliamentary year and held annually by faith communities, this year provided a platform for youth to contribute to the national discourse on the environment.

The event, attended by the country's prime minister, members of parliament, the mayor of The Hague, ambassadors, and faith communities, provided an occasion for over 1,000 participants to reflect on the future of their country.

"Whoever looks in the eyes of a child sees that his or her future is important," said Ad van der Helm, chair of the program. "Our decisions, or our lack of decisions now, will affect their environment. If we care now, they can live."

The faith communities of the country, he continued, "wish to connect the voices of the youth and the voices of the future to the voices of those who bear responsibility at this time. All generations, all layers of society, all groups, languages, and cultures living in our country, share in the responsibility for this earth, our world."



Namara van Bekkum, a 16-year-old youth representing the Dutch Baha'i community, opened the main address for the event with a passage from 'Abdu'l-Baha's First Tablet to The Hague, written nearly a century ago in the aftermath of World War I to a peace organization based in the city: "Until the minds of men become united, no important matter can be accomplished."

Her comments were part of a program that stimulated profound reflection through readings of sacred texts, moments of silence, musical performances, and remarks by additional presenters.

Ms. van Bekkum underscored the importance of recognizing the spiritual dimensions of human identity. "How can our rapidly growing and developing world population live in harmony with the earth and its limited natural resources? We simply consume too much of what is produced in the wrong manner," Ms. van Bekkum said in her speech. "A new consciousness is needed in how we human beings interact with the natural world. We need to pay attention to those spiritual characteristics that are compatible with the oneness of humanity and harmony with nature, for example fairness, honesty, love for the earth and human beings, generosity, and detachment from material things."

In preparing her presentation, Ms. van Bekkum drew on her experiences with community building endeavors. "We have many conversations with people where I live on topics like justice and unity. Many see that this is what we need right now," she says. "And everywhere in the world, people—youth, kids, and adults—are having more conversations about the importance of unity in climate change."

Marga Martens, chair of the event's organizing committee and a representative of the Netherlands' Baha'i community, explains that "this year's event was the first time a youth gave the main speech. That was an intentional choice by the committee to give voice to the country's young people."

The gathering is the outcome of close and unified collaboration among religious communities in the Netherlands. "We don't see each other as separate groups presenting their own piece. We see each other as one community," Ms. Martens said.